



**RFD**

**Results Framework Document**

**For**



**Central Rice Research Institute**

**(2011-2012)**

## **Section 1:**

### **Vision, Mission, Objectives and Functions**

#### **Vision**

Food and nutritional security through sustainable rice production.

#### **Mission**

To develop and disseminate eco-friendly rice production technologies for enhancing productivity and profitability of rice cultivation in all agro-climatic situations.

#### **Objectives**

1. Genetic enhancement of rice productivity employing modern scientific tools
2. Development of production technologies for profitable rice production
3. Development of protection technologies against biotic stresses
4. Dissemination of rice production technologies

#### **Functions**

- Conduct basic, applied and adaptive research on crop improvement and resource management for increasing and stabilizing rice productivity in all ecologies with special emphasis on rainfed ecosystem and the related abiotic stresses.
- Generation of appropriate technology through applied research for increasing and sustaining productivity and income from rice and rice-based cropping/farming systems in all the ecosystems in view of decline in per capita availability of land.
- Collection, evaluation, conservation and exchange of rice germplasm and distribution of improved plant materials to different national and regional research centres.
- Development of technology for integrated pest, disease and nutrient management for various farming situations.
- Characterization of rice environment in the country and evaluation of physical, biological, socio-economic and intutional constraints to rice production under different agro-ecological conditions and in farmers' situations and develop remedial measures for their amelioration.
- Maintain database on rice ecology, ecosystems, farming situations and comprehensive rice statistics for the country as a whole in relation to their potential productivity and profitability.
- Impart training to rice research workers, trainers and subject matter/extension specialists on improved rice production and rice-based cropping and farming systems.
- Collect and maintain information on all aspects of rice and rice-based cropping and farming systems in the country.

## Section 2: *Inter se* Priorities among Key Objectives, Success Indicators and Targets

S. No.	Objectives	Weight	Actions	Success indicators	Unit	Weight	Target/Criteria value				
							Excellent	Very good	Good	Fair	Poor
							100%	90%	80%	70%	60%
1.	Genetic enhancement of rice productivity through conventional and biotechnological means	30	Development of elite genotypes (inbreds, hybrids and transgenics)	Breeding lines developed	Number	10	50	45	36	31	27
			Incorporation of resistance to abiotic and biotic stress in elite genotypes (inbreds, hybrids and transgenics)	Genotypes identified	Number	10	5	4	3	2	1
			Serving as National active collection centre for rice germplasm	Characterization and evaluation of germplasm	Number of accessions	5	500	400	300	200	100
			Seed production	Breeder seed production	Quintals	5	300	250	200	175	150
2.	Development of production technologies for profitable rice production	20	Development and refinement of agro techniques for rice production	Agro technology for genotypes and/or ecology	Number	10	8	6	4	2	1
			Development/refinement of efficient and cost effective farm machineries	Machines refined/developed	Number	10	2	1	-	-	-
3.	Development of protection technologies against diseases and pests	20	Collection and characterization of microbes (pathogens, bio-control agents, endophytes) and insects.	Isolates characterized	Number	5	200	180	160	140	120
			Surveillance and forewarning for disease and pest Occurrence in relation to climate change	Geographical areas surveyed /forewarned	Number of locations	5	33	30	23	19	16
			Identification of pesticide for controlling the pests and diseases	Effective ready-to-use (commercial) pesticides identified	Number of products	5	5	4	3	2	1
			Identification of resistant/tolerant donors for diseases and pests	Donors identified	Number	5	5	4	3	2	1

4.	Dissemination of rice production technologies and identification of socio-economic issues for policy implications	19	Subject Matter Specialists/Trainers' training	Trainings conducted	Number of days	6	32	30	28	25	22
			Technology bulletins in English, Hindi and Oriya languages	Number of publications	Number	6	7	6	5	4	3
			Participation in exhibition and conducting media meet	Number of exhibition and media meet	Number	4	5	4	3	2	1
			Advisory service	Number of visitors attended	Number	3	3500	3200	2800	2500	2100
5.	Efficient functioning of RFD system	11	Timely submission of draft for approval	On-time submission	Date	2	June 10, 2011	June 14, 2011	June 16, 2011	June 20, 2011	June 22, 2011
			Timely submission of results	On-time submission	Date	1	May 1, 2011	May 3, 2011	May 4, 2011	May 5, 2011	May 6, 2011
			Finalize a Strategic Plan for RC	Finalize the strategic plan for next 5 years	Date	2	Dec. 10, 2011	Dec. 15, 2011	Dec. 20, 2011	Dec. 24, 2011	Dec. 31, 2011
			Identify potential areas of corruption related to organization activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption	%	2	Dec. 10, 2011	Dec. 15, 2011	Dec. 20, 2011	Dec. 24, 2011	Dec. 31, 2011
			Implementation of Sevottam	Create a Sevottam compliant system to implement, monitor and review Citizen's Charter	Date	2	Dec. 10, 2011	Dec. 15, 2011	Dec. 20, 2011	Dec. 24, 2011	Dec. 31, 2011
				Create a Sevottam Compliant system to redress and monitor public Grievance	Date	2	Dec. 10, 2011	Dec. 15, 2011	Dec. 20, 2011	Dec. 24, 2011	Dec. 31, 2011

### Section 3:

**Table 2: Trend values of success indicators**

Sr. No.	Objective	Actions	Success indicator	Unit	Actual value for FY 09/10	Actual value for FY 10/11	Target value for FY 11/12	Projected value for FY 12/13	Projected value for FY 13/14
1.	Genetic enhancement of rice productivity through conventional and biotechnological means	Development of elite genotypes (inbreds, hybrids and transgenics)	Breeding lines developed	Number	124	78	45	45	45
		Incorporation of resistance to abiotic and biotic stress in elite genotypes (inbreds, hybrids and transgenics)	Genotypes identified	Number	50	44	4	5	5
		Serving as National Active Collection centre for rice germplasm	Characterization and evaluation of germplasm	Number of accessions	3000	3206	400	500	500
		Seed production of released and notified varieties	Breeder seed production	Quintals	390	300	250	250	250
2.	Development of production technologies for profitable rice production	Development of agro techniques for newly developed genotypes	Agro technology for genotypes and/or ecology	Number	8	8	6	4	4
		Development of efficient and cost effective farm machineries	Machines refined/developed	Number	1	1	1	1	1
3.	Development of protection technologies against diseases and pests	Collection and characterization of microbes (pathogens, bio-control agents, endophytes) and insects.	Number of isolates	Number	183	224	180	200	200
		Surveillance and forewarning for disease and pest occurrence in relation to climate change	Sample of Geographical areas	Number of locations	23	34	30	30	30
		Identification of pesticide for controlling of pests and diseases	Effective ready-to-use (commercial) pesticides identified	Number of products	-	-	4	5	5
		Identification of resistant/tolerant donors for diseases and pests	Donors identified	Number	-	-	4	5	5
4	Dissemination of rice production technologies and identification of socio-economic issues for policy implications	Subject Matter Specialists/Trainers' training	Trainings conducted	Number of days	58	24	30	32	32
		Technology bulletins in English, Hindi and Oriya languages	Number of publications	Number	3	4	6	7	10
		Participation in exhibition and conducting media meet	Number of exhibition and media meet	Number	7	9	4	5	5
		Advisory service	Number of visitors attended	Number	3014	3502	3200	3200	3200

5.	Efficient functioning of RFD system	Timely submission of draft for approval	On-time submission	Date	-	-	June 14, 2011	-	-
		Timely submission of results	On-time submission	Date	-	-	May 3, 2011	-	-
		Finalize a Strategic Plan for RC	Finalize the strategic plan for next 5 years	Date	-	-	Dec. 15, 2011	-	-
		Identify potential areas of corruption related to organization activities and develop an action plan to mitigate them	Finalize an action plan to mitigate potential areas of corruption	%	-	-	Dec. 15, 2011	-	-
		Implementation of Sevottam	Create a Sevottam compliant system to implement, monitor and review Citizen's Charter	Date	-	-	Dec. 15, 2011	-	-
			Create a Sevottam Compliant system to redress and monitor public Grievance	Date	-	-	Dec. 15, 2011	-	-

## **Section 4:**

### **Description and Definition of Success Indicators and Proposed Measurement Methodology**

#### **Objective 1:**

Genetic enhancement of yield through conventional and biotechnological means is the main tool for increasing the rice productivity in a sustainable way. This objective will be fulfilled through development of elite genotypes of inbreds, hybrids and transgenics, by incorporating resistance to abiotic and biotic stresses and by assessing grain and nutritional quality. Seed production of released and notified varieties and providing quality seeds as per the indent of DAC, Govt. of India, State Governments and other agencies will be another activity.

#### **Objective 2:**

In order to achieve profitable and higher rice production in all agro climatic situations, development of suitable production technologies for rice and rice based cropping systems, water saving options, nutrient management, soil health management and cost effective efficient farm machineries will be second objective of the institute.

#### **Objective 3:**

Development of protection technologies against rice pests, weeds and diseases will be an important area of the institute. This will be achieved through proper surveillance and development of forewarning systems and management of pests and pathogens by eco-friendly, efficient systems including biocontrol and IPM.

#### **Objective 4:**

The objective of effective dissemination of rice technologies and identification of socio-economic issues for policy implementation will be addressed through Scientist – Extension officers – Farmers linkages, Trainers’ training programme, publications and advisory services.

## **Section 5:**

### **Specific Performance Requirements from other Departments**

1. Quantity of seed production of released and notified varieties will depend on the indents of DAC, Govt. of India, State Governments and other agencies.
2. Rice varietal development will be accomplished with the support from national (State Governments, DAC, PPV&FRA, DBT, DST) and international (IRRI) organizations.
3. Development of rice production technologies will be achieved by taking support of national organizations like DST.
4. Development of rice protection technologies will be done with the help from other departments like DST and state line departments.
5. Successful transfer of technology programme will be addressed with the help of Central (DST, DAC) and state extension departments.



## Section 6: Outcome/Impact of activities of Organization/Ministry

Sl. No.	Outcome/Impact of organization /Ministry	Jointly responsible for influencing this outcome/impact with the following organization(s)/departments/ministry(ies)	Success Indicator(s)	Unit	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
1	Development of elite genotypes (Inbreds, hybrids, transgenics)	State Agril. Departments, DAC, IRRI, Philippines	Breeding lines developed	Number	124	78	45	45	45
2	Incorporation of resistance to abiotic and biotic stress in elite genotypes	IRRI Philippines	Genotypes identified	Number	50	44	15	15	15
3	Serving as National Active Collection centre for rice germplasm	State Agril. Departments, Govt. of Orissa, PPV & FRA	Characterization (morpho., DNA analysis, registration of germplasm)	Number	3000	3206	1500	1500	1500
4	Seed production	DAC, State Governments, Private Seed production Agencies	Breeder seed Production	Quintals	390	300	250	250	250
5	Surveillance and forewarning for disease, pest and weed occurrence in relation to climate change	DAC	Geographical areas surveyed/forewarned	Number	1	3	2	2	2